

Amendment

Application Filed: August 3, 2006

Serial No: 10/588,326

IN THE CLAIMS:

1. (Currently Amended) A mirror assembly comprising:

a case frame (30) defining a concave surface (38), said case frame (30) including a retention post (40) having an elongated tip (42) in a T-shape with respect to said retention post (40); a backing plate (54) including a support surface (88) and a dish portion (56) having a center opening (58), said backing plate (54) being positioned against the case frame (30) so that the dish portion (56) cooperates with the concave surface (38) and the post (40) extends through the center opening (58) in the dish portion (56);

a retention ring (66), said retention ring (66) including a center slot (68) and a locking portion (72), (74), (76), said retention post (40) extending through the center slot (68) so that the tip of the post (40) is engaged with the locking portion (72), (74), (76); and

a mirror glass (86) mounted to the support surface (88) of the backing plate (54), wherein the backing plate and the mirror glass (86) can be manually positioned by pivoting the dish portion (56) on the concave surface (38).

2. (Currently Amended) A mirror assembly comprising:

a case frame (30) defining a concave surface (38), said case frame (30) including a retention post (40) having an elongated tip (42); a backing plate (54) including a support surface (88) and a dish portion (56) having a center opening (58), said backing plate (54) being positioned against the case frame (30) so that the dish portion (56) cooperates with the concave surface (38) and the post (40) extends through the center opening (58) in the dish portion (56);

a retention ring (66), said retention ring (66) including a center slot (68) and a locking portion (72), (74), (76), said retention post (40) extending through the center slot (68) so that the tip of the post (40) is engaged with the locking portion (72), (74), (76); and

a mirror glass (86) mounted to the support surface (88) of the backing plate (54), wherein the backing plate and the mirror glass (86) can be manually positioned by pivoting the dish portion (56) on the concave surface (38);

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wherein the locking portion (72), (74), (76) includes opposing cam ramps (72), (74) and a detent (76) that accepts the elongated tip (42), wherein the retention ring (66) is secured to the mirror assembly (10) by inserting the retention post (40) through the slot (68), rotating the retention ring (66) so that the tip rides along the ramps (72), (74) until the tip is positioned in the detent (76).

3. (Currently Amended) The mirror assembly according to claim 2 wherein the retention ring (66) further includes at least one spring element (78), said at least one spring element (78) applying pressure against the dish portion (56) when the retention ring (66) is locked to the backing plate (54).

4. (Currently Amended) The mirror assembly according to claim 3 wherein the at least one spring element (78) is four symmetrically disposed leaf spring elements (78) extending from a rim (80) of the retention ring (66).

5. (Currently Amended) The mirror assembly according to claim 2 wherein the retention ring (66) further includes an extended neck portion (70), said retention post (40) extending through the neck portion (70).

6. (Currently Amended) The mirror assembly according to claim 2 wherein the retention ring (66) is a single piece plastic member.

7. (Currently Amended) The mirror assembly according to claim 2 wherein the case frame (30) includes at least one spacing member (46) having a slot (48) and the backing plate (54) includes an opening (60) and an alignment arm (64) extending across the opening (60), and wherein the alignment arm (64) is positioned within the slot (48) of the spacing member (46).

8. (Cancelled)

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9. (Currently Amended) The mirror assembly according to claim 2 wherein the concave surface (38) of the case frame (30) is defined by members (32), (34), (46), (50) extending from the case frame (30).

10. (Currently Amended) The mirror assembly according to claim 2 wherein the retention ring (66) includes a plurality of openings (82) for accepting a tool to rotate the ring (66) within the dish position (56).

11. (Currently Amended) The mirror assembly according to claim 2 wherein the case frame (30) is an internal support structure of a side mirror of a vehicle (12).

12. (Currently Amended) The mirror assembly according to claim 11 wherein the mirror assembly (10) is a spotter mirror assembly associated with the side mirror.

13. (Currently Amended) A vehicle side spot mirror assembly comprising:
an internal case frame (30) including members defining a concave surface (38), said case frame (30) further including a T-shaped retention post (40) having an elongated tip (42);
a backing plate (54) including a support surface (88) and a dish portion (56) having a center opening (58), said backing plate (54) being positioned against the case frame (30) so that the dish portion (56) cooperates with the concave surface (38) and the post (40) extends through the center opening (58) in the dish portion (56);

a single piece plastic retention ring (66), said retention ring (66) including a center slot (68), a plurality of symmetrically disposed spring elements (78), a neck portion (70) and a cam locking system (72), (74), (76) including opposing cam ramps (72), (74) and a detent détente (76) that accepts the elongated tip (42), said retention post (40) extending through the neck portion (70) and the center slot (68) so that the tip (42) of the post (40) is engaged with the locking system (72), (74), (76) and the spring elements (78) apply pressure against the dish portion (56), wherein the retention ring (66) is secured to the mirror assembly by inserting the

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retention post (40) through the center slot (68), rotating the retention ring (66) so that the tip (42) rides along the ramps (72), (74) until the tip (42) is locked in the détente (76); and

a mirror glass (86) mounted to the support surface (88) of the backing plate (54), wherein the backing plate (54) and the mirror glass (86) can be manually positioned by pivoting the dish portion (56) on the concave surface.

14. (Currently Amended) The mirror assembly according to claim 13 wherein the case frame (30) includes at least one spacing member (46) having a slot (48) and the backing plate (54) includes an opening (60) having an alignment arm (64) extending across the opening (60), and wherein the alignment arm (64) is positioned within the slot (48).

15. (Currently Amended) The mirror assembly according to claim 13 wherein the retention ring (66) includes a plurality of openings (82) for accepting a tool to rotate the ring (66) within the dish portion (56).

16. (Currently Amended) A method of directing a mirror, said method comprising:
providing a case frame (30) including a concave surface (38) and a retention post (66) having an elongated tip (42);

providing a backing plate (54) including a support surface (88) and a dish portion (56) having a center opening (58);

positioning the backing plate (54) against the case frame (30) so that the dish portion (56) cooperates with the concave surface and the post (40) extends through the opening (58) in the dish portion (56);

providing a retention ring (66) including a center slot (68), at least one spring element (78) and a locking portion (72), (74), (76);

positioning the retention ring (66) so that the retention post (40) extends through the center slot (68);

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rotating the retention ring (66) so that the tip (42) of the post (40) engages the locking portion (72), (74), (76) and the at least one spring element (78) applies pressure against the dish portion (56);

mounting a mirror glass (86) to the support surface (88) of the backing plate (54);

adjusting the position of the backing plate (54) and the mirror glass (86) by pivoting the dish portion (56) on the concave surface (38).

17. (Currently Amended) The method according to claim 16 wherein providing a retention ring (66) includes providing opposing cam ramps (72), (74) and a detent détente (76) that accepts the elongated tip (42).

18. (Currently Amended) The method according to claim 16 wherein providing a retention ring (66) includes providing four symmetrically disposed spring elements (78) extending from a rim (80) of the retention ring (66).

19. (Currently Amended) The mirror assembly according to claim 16 wherein providing a retention ring (66) includes providing a single piece plastic member.

20. (Currently Amended) The mirror assembly according to claim 16 wherein providing a case frame (30) includes providing a case frame (30) having at least one spacing member (46) with a slot (48) and providing a backing plate (54) includes providing a backing plate (54) having an opening (60) with an alignment arm (64) extending across the opening (60), said method further comprising positioning the alignment arm (64) within the slot (48).